

AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings includes a new Figure 30.

Attachment: 1 new sheet with Figure 30.

REMARKS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1-18 and 21-46 are presently pending in this case. Claims 8-17 and 27-28 have been withdrawn from consideration. Claim 19 was previously canceled while Claim 20 is canceled without prejudice or disclaimer by the present amendment. The present Amendment also amends Claim 1 and adds new Claim 46 without introducing any new matter or raising new issues.

The outstanding Office Action objected to the drawings because of informalities. Claims 1 and 5-7 were rejected under 35 U.S.C. §102(b) as anticipated by Tanaka et al. (U.S. Patent No. 5,892,244, herein “Tanaka”). Claims 1, 6, 7, 18, 21, 22 and 24 were rejected under 35 U.S.C. §102(b) as being anticipated by Tsumura et al. (U.S. Patent No. 5,500,537, herein “Tsumura”). Claims 2, 20, 23 and 25 were rejected under 35 U.S.C. §103(a) as unpatentable over Tanaka or Tsumura. Claim 26 was rejected under 35 U.S.C. §103(a) as unpatentable over Tanaka or Tsumura in view of Yang et al. (U.S. Publication No. 2002/013555, herein “Yang”). Claims 31 and 32 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tanaka or Tsumura in view of Ong et al. (U.S. Publication No. 2003/0164495, herein “Ong”). Claims 3, 29, 30 and 33-45 were allowed and Claim 4 was indicated as allowable if rewritten in independent form.

Applicant acknowledges with appreciation the indication of allowable subject matter. In response, new Claim 46 is presented, reciting all the features of independent Claim 1 and allowable dependent Claim 4.

In response to the objection to the drawings under 37 C.F.R. §1.83(a), submitted herewith is a Letter Submitting Drawing Sheets along with 1 Sheet with new Figure 30. The specification is also amended to list Figure 30 in the brief description of the drawings and at

page 52. Figure 30 shows a sectional view of an active device 40, wherein the high resistance layer 7 is disposed between the low resistance layer 6 and the organic semiconductor layer 5. New Figure 30 is based on Figure 7, but the location of the high resistance layer 7 is changed according to the specification as originally filed from page 52, line 17 to page 53, line 2. Accordingly, Applicant respectfully submits that no new matter is added by filing the new Figure 30.

In order to clarify Applicant's invention, independent Claim 1 is amended to delete the recite electrically conductive polymers. Furthermore, Claim 20 is cancelled without prejudice or disclaimer. In light of the amendment to independent Claim 1, Applicant traverses the rejection under 35 U.S.C. §102(b) over Tanaka and respectfully requests reconsideration of this rejection, as discussed next.

Briefly recapitulating, Applicant's Claim 1 relates to a semiconductor device, including, *inter alia*: a gate electrode; an insulating layer on the gate electrode; a first electrode on the insulating layer; a second electrode on the insulating layer at an interval with the first electrode; an organic semiconductor layer disposed in the interval between the first electrode and the second electrode; and a first resistance layer formed on the organic semiconductor layer and having an electrical resistance lower than an electrical resistance of the organic semiconductor layer, wherein the first resistance layer is formed from a metal.

Turning now to the Claim 1 applied reference, Tanaka describes a field effect transistor in which a π -conjugated polymer film serving as a semiconductor layer is manufactured.¹ Tanaka's Figure 1 shows a sectional view of the field effect transistor, wherein the layer 4 is a semiconductor layer made of a π -conjugated polymer, with the source and drain electrodes 5 and 6. However, Tanaka is entirely silent as to the first resistance layer being formed from a metal, as recited in Applicant's Claim 1. Tanaka merely teaches

¹ See Tanaka in the Abstract.

that the gate electrode 2, source electrode 5 and the drain electrode 6 are made of metal.²

Accordingly, Tanaka fails to teach or suggest the first resistance layer formed on the organic semiconductor layer formed from metal.

In response to the outstanding 35 U.S.C. §103(a) rejections, Applicant further respectfully submits that the other references Tsumura, Yang, and Ong, used to form the 35 U.S.C. §103(a) rejections, fail to teach or suggest the first resistance layer formed on the organic semiconductor layer is formed from metal. In Tsumura, the field effect transistor's channel is made of a lamination of two different organic compounds. Yang relates to a high-voltage level shifter for a TFT-LCD gate driver and does not teach or suggest any features regarding the claimed first resistance layer formed on the organic semiconductor layer being formed from metal. Ong describes an electronic device containing a polythiophene derived from a monomer segment, used as a semiconductor channel layer in TFTs,³ but is also silent as to the first resistance layer being formed on the organic semiconductor layer of a metal.

Therefore, even if the combination of Tanaka with any of the references Tsumura, Yang, and/or Ong is assumed, for the sake of argument, to be proper, the combination fails to teach every element of the claimed invention. Accordingly, Applicant respectfully traverses, and requests reconsideration of, the 35 U.S.C. §103(a) rejections based on these patents.⁴

The present amendment is submitted in accordance with the provisions of 37 C.F.R. §1.116, which after Final Rejection permits entry of amendments placing the claims in better form for consideration on appeal. As the present amendment is believed to overcome outstanding objection to the drawings and the rejections under 35 U.S.C. §102(b) and §103(a) of the outstanding Office Action, the present amendment places the application in better form

² See Tanaka at column 4, lines 62-66.

³ See Ong in the Abstract.

⁴ See MPEP 2142 stating, as one of the three "basic criteria [that] must be met" in order to establish a *prima facie* case of obviousness, that "the prior art reference (or references when combined) must teach or suggest all the claim limitations," (emphasis added). See also MPEP 2143.03: "All words in a claim must be considered in judging the patentability of that claim against the prior art."

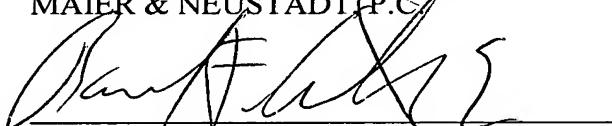
for consideration on appeal. In addition, the present amendment is not believed to raise new issues because the changes to Claim 1 merely delete features from independent Claim 1 that were already considered. It is therefore respectfully requested that 37 C.F.R. §1.116 be liberally construed, and that the present amendment be entered.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1-7, 18, 21-26, and 29-46 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicant's undersigned representative at the below listed telephone number.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Gregory J. Maier
Attorney of Record
Registration No. 25,599

Raymond F. Cardillo, Jr.
Registration No. 40,440

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)